

WHAT IS CLAIMED IS:

1. A background television schedule system for displaying television schedule information on a television including a television screen on which is
5 displayed a primary display, said background television schedule system comprising:

means for inputting user selections of operating characteristics for a session of operating said background television schedule system;

10 a memory, coupled to said user selection input means, for storing said user selections;

means, coupled to said memory, for activating and suspending operation of said background television schedule system; and

15 background display means, coupled to said television, to said activation means and to said memory, for displaying background schedule information over a portion of said television screen in response to a first activation of operation of said background television
20 schedule system, said primary television display being displayed on said television screen in conjunction with said background schedule information, said displayed background schedule information being determined according to said operating characteristics, wherein said
25 background display means is configured to terminate display of said background schedule information on said television screen upon suspension of said background television schedule system, said background television schedule system having a first status immediately prior
30 to said suspension of said background television schedule system;

wherein said activation means is configured to re-activate said background television schedule system with a second status at least substantially the same as said
35 first status, upon a second activation of said background television schedule system with a same session as said

004463460

first activation of said background television schedule system.

2. In a video recorder including a future schedule memory adapted to store the channel and time of occurrence of programs desired to be recorded, the video recorder being adapted to receive television input signals from a multi-channel tuner/descrambler having a first remote control receiver for channel selection, the improvement comprising:

10 a first remote control transmitter forming a part of the video recorder and operative under control of signals stored in said future schedule memory of the video recorder, said first remote control transmitter being adapted to provide signals to said remote control receiver of the tuner/descrambler for channel selection at the time of occurrence of a program to be recorded to cause said tuner/descrambler to provide the video recorder with the appropriate television signal to be recorded;

20 a second remote control receiver forming part of the video recorder; and

a second remote control transmitter for provision of signals to said second remote control receiver in order to allow remote control of the video recorder and of the multi-channel tuner/descrambler through signals provided by the second remote control transmitter to the video recorder and from the first remote control transmitter of the video recorder to the first remote control receiver, whereby a single remote control unit
30 may be used to control both the video recorder and the multi-channel tuner/descrambler.

3. In a video recorder including a future schedule memory adapted to store the channel and time of occurrence of programs desired to be recorded, the video recorder being adapted to receive television input
35

66780-2422100

signals from a multi-channel tuner/descrambler having a first remote control receiver for channel selection, the improvement comprising:

5 a first remote control transmitter forming a part of the video recorder and operative under control of signals stored in said future schedule memory of the video recorder, said first remote control transmitter being adapted to provide signals to said remote control receiver of the tuner/descrambler for channel selection
10 at the time of occurrence of a program to be recorded to cause said tuner/descrambler to provide the video recorder with the appropriate television signal to be recorded, said first remote control transmitter controlling the channel selection and the
15 energization of the tuner/descrambler;

a second remote control receiver forming part of the video recorder;

a second remote control transmitter for provision of signals to said second remote control receiver in
20 order to allow remote control of the video recorder and of the multi-channel tuner/descrambler through signals provided by the second remote control transmitter to the video recorder and from the first remote control transmitter of the video recorder to the first remote
25 control receiver, whereby a single remote control unit may be used to control both the video recorder and the multi-channel tuner/descrambler;

wherein said first remote control transmitter is connected to the video recorder via a flexible cable,
30 said first remote control transmitter being positioned properly with respect to said first remote control receiver of the multi-channel tuner/descrambler for receipt of said signals generated by said first remote control transmitter by said first remote control
35 receiver; and

wherein the first remote control receiver

SECRET

and the first remote control transmitter communicate via infrared signals.

4. A method of controlling a multi-channel tuner/descrambler for television signals having a remote control receiver for channel selection for recording future scheduled programs, said method comprising the steps of:

storing the channel and time of occurrence of future programs desired to be recorded in a future schedule memory;

providing remote control signals to the remote control receiver via a remote control transmitter when the current time coincides with said time of occurrence of future programs desired to be recorded;

recording the television signal output of the multi-channel tuner/descrambler via a video recorder when the current time coincides with said time of occurrence of future programs desired to be recorded;

controlling operation of the video recorder via a second remote control receiver disposed in the video recorder; and

providing second remote control signals to the second remote control receiver via a second remote control transmitter, whereby both the multi-channel tuner/descrambler and the video recorder may be controlled by the second remote control transmitter.

5. The method claimed in claim 4, wherein:

said step of providing remote control signals to the remote control receiver via a remote control transmitter includes

generating infrared remote control signals via said remote control transmitter for selection of the channel tuned by the multi-channel tuner/descrambler and for energization of the multi-channel tuner/descrambler.

SECRET

connecting said remote control transmitter to said future schedule memory via a flexible cable, and disposing said remote control transmitter proximate the remote control receiver.

5 6. A video system comprising:
a multi-channel source of television signals;
a multi-channel tuner connected to said
multi-channel source of television signals having a
remote control receiver for channel selection based upon
10 received remote control signals;

a video recorder connected to said multi-channel tuner having means operative to generate a signal specifying a channel selection; and

a remote control transmitter operative to receive
15 said signal specifying a channel selection generated by said video recorder and operative to generate remote control signals corresponding to said channel selection for receipt by said remote control receiver of said multi-channel tuner for channel selection.

20 7. The video system of claim 6, wherein:
said multi-channel source of television signals includes a television cable including at least one scrambled channel;

said multi-channel tuner consists of a cable box
25 adapted to receive a selected channel from said television cable corresponding to received remote control signals, descramble the television signal on said selected channel if said selected channel is one of said at least one scrambled channel, and output the television
30 signals of said selected channel on a predetermined channel;

said video recorder further includes a second remote control receiver for control of video recorder functions, and means for generating remote control signals via said
35 remote control transmitter for channel selection

300-2-100

corresponding to remote control signals received via said second remote control receiver; and

5 said video system further includes a second remote control transmitter operative to generate remote control signals for receipt by said second remote control receiver of said video recorder for control of video recorder functions, whereby said second remote control transmitter may be used to control both said video recorder and said multi-channel tuner.

10 8. The video system of claim 7, wherein:
said second remote control transmitter includes means for providing channel selection signals; and
said remote control transmitter controls the channel selection of said multi-channel tuner corresponding to
15 channel selection signals provided by said second remote control transmitter.

9. The video system of claim 7, wherein:
said second remote control transmitter includes means
20 for providing energization signals; and
said remote control transmitter controls the energization of said multi-channel tuner corresponding to energization signals provided by said second remote control transmitter.

25 10. The video system of claim 6, wherein:
said video recorder further includes
a future schedule memory adapted to store the channel and time of occurrence of future programs,
a real time clock circuit for generating
30 present time signals,
a controller connected to said future schedule memory, said clock circuit,
and said remote control transmitter, said controller operative to control said remote control
35 transmitter to transmit remote control signals to the

2025 RELEASE UNDER E.O. 14176

remote control receiver of the multi-channel tuner for selection of the channel stored in said future program memory when said present time clock signal coincides with the time of occurrence of the future program.

5

11. The video system of claim 10, wherein said video recorder further includes:

a tape drive unit adapted to record television signals on a video tape and play back television signals previously recorded on video tape, and wherein

said future schedule memory stores the channel and time of occurrence of future programs desired to be recorded, and

said controller is further connected to said tape drive unit to control said tape drive unit to record the television signal received from the multi-channel tuner when said present time clock signal coincides with the time of occurrence of a future program to be recorded.

20

12. The video system of claim 6, wherein:

said remote control transmitter is connected to the video recorder via a flexible cable, said remote control transmitter being positioned properly with respect to said remote control receiver of the multi-channel tuner for receipt of said remote control signals generated by said remote control transmitter by said remote control receiver.

13. A video recorder adapted to receive television input signals from a multi-channel tuner/descrambler which has a remote control receiver for channel selection, said video recorder comprising:

a future schedule memory adapted to store the channel and time of occurrence of future programs to be recorded;

a clock circuit for generating present time clock signals;

a tape drive unit adapted to record television signals on video tape and play back television signals previously recorded on video tape;

a remote control transmitter operative to generate
5 remote control signals for receipt by the remote control receiver of the tuner/descrambler for channel selection;

a controller connected to said future schedule memory, said clock circuit, said tape drive unit and said remote control transmitter, said controller operative
10 to

control said remote control transmitter to transmit remote control signals to the remote control receiver of the multi-channel tuner/descrambler for selection of the channel to be recorded stored in said
15 future program memory when said present time clock signal coincides with the time of occurrence of a future program to be recorded, and

control said tape drive unit to record the television signal received from the multi-channel
20 tuner/descrambler when said present time clock signal coincides with the time of occurrence of a future program to be recorded.

14. The video recorder of claim 13, further
25 comprising:

a second remote control receiver for receipt of second remote control signals;

said controller being further connected to said second remote control receiver and further operative to
30 control video recorder functions in accordance with received second remote control signals, and

generate remote control signals via said remote control transmitter for channel selection corresponding to second remote control signals received via a second
35 remote control receiver; and

a second remote control transmitter separated from said video recorder for provision of signals to said

SECRET

15. A system for interfacing a cable television
10 decoder having an input for receiving television signals
including a plurality of channels and an output for
directing a selected channel from the television signals
to a television or television accessory, which comprises:

means, connected to said programmable tuning means,
20 for inhibiting said programmable tuning means from tuning
to the selected television channel when said cable
television decoder is operational;

25 means, connected to said means for emulating, for transmitting emulated channel selecting commands from said means for emulating to said cable television decoder; and

16. The system of claim 15 in which said means for transmitting the emulated channel selecting commands comprises an infrared transmitter positioned to direct the emulated channel selecting commands to an input of said cable decoder for remote control signals.

17. The system of claim 16 in which said means for making television channel selections comprises a remote control unit having an infrared transmitter.

18. The system of claim 15 in which said means for making television channel selections additionally includes means for setting a desired activation time for a channel selection, said system further including a memory connected to said means for emulating for storing television channel selections and desired activation times for the television channel selections.

19. The system of claim 15 in which said means for emulating supplies television channel selections to said programmable tuning means when said cable television decoder is not operating.

20. The system of claim 15 in which said means for emulating and said means for transmitting are implemented with a microprocessor.

21. The system of claim 20 in which said means for inhibiting is implemented with a latch connected between said microprocessor and said programmable tuner to receive a signal identifying the selected television channel, said latch also being connected to said microprocessor to receive a latch enable signal.

22. The system of claim 21 in which said microprocessor is connected to said television accessory to provide the signal identifying the selected television channel to a display of said television accessory.

23. The system of claim 15 additionally comprising a means, on said television accessory, for displaying a selected channel.

24. The system of claim 18 wherein the desired activation times for the television channel selections are about the broadcast times for the television channel selections, and wherein said means for transmitting
5 emulated channel selecting commands transmits said emulated channel selecting commands at said desired activation times.

25. A method for interfacing a cable television decoder having an input for receiving television signals
10 including a plurality of channels and an output for directing a selected channel from the television signals to a television or television accessory, which comprises:
receiving the selected channel on a fixed channel from said cable television decoder at a programmable
15 tuning means for selecting a desired television channel signal;
inhibiting said programmable tuning means from tuning to the selected television channel when said cable television decoder is operational;
20 making television channel selections;
emulating the channel selecting commands of said cable television decoder corresponding to the television channel selections; and
transmitting the emulated channel selecting commands
25 to said cable television decoder.

26. The method of claim 25 in which the emulated channel selecting commands are transmitted by infrared.

27. The method of claim 26 in which the television channel selections are made with infrared.

30. 28. The method of claim 25 additionally including the step of setting a desired activation time for a channel selection.

5 30. The method of claim 25 additionally comprising
the step of displaying the selected channel on a display
of said television accessory.

Add
p3

D3

Add
BL

Add C27

2025